

**Hansen , Lindsey**

to Francine, Jessica, Irene, me ▾

Wed, May 29, 9:28 AM



Hi Laruen,

Thanks for your patience on this. Answers to your questions are below:

1. How does light synchronization/transit prioritization work? Is there a device on the bus and the light? How do the two communicate with one another?
  - An emitter is placed on the bus and a detector is placed on the traffic signal. The existing systems use infrared technology to communicate, and the signal is triggered when a bus is running behind schedule. When triggered, the Transit Signal Priority (TSP) holds the traffic signal in the green phase a few seconds longer to enable the bus to make it through the intersection and get back on schedule.
2. Does the driver have to push a button to signal that the bus is approaching a traffic light?
  - No, the driver does not push a button to activate TSP. The system on the bus automatically communicates with the traffic signal to activate TSP based on parameters within the TSP system.
3. Is the technology used to create a faster route overall, or is it used to catch the bus up to its schedule when running behind?
  - It's used only at signalized intersections when the bus is running behind schedule to help improve travel time reliability and increase schedule adherence.
4. I've interviewed bus riders who say the bus often gets delayed at red lights, causing it to be slower than scheduled. In my interview with Paul Jablonski from MTS, he said there were "engineers working on it." What causes the light synchronization technology to not always function properly?
  - Currently, Passive TSP and signal coordination is operational along El Cajon Boulevard for transit operations. The bus automatically requests 'priority' and the signal system responds, given certain conditions. The signal system must balance requests with opposing traffic movements, pedestrian crossing cycles, and left turns with the request from the transit vehicle.

Please let me know if there is anything else we can do to help.

Best,

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